

INCIDENCE OF INSECT PESTS AND DISEASES OF BANANA CULTIVATIONS IN GAMPAHA DISTRICT

K.G.L.P. Gunawardane¹, M. Fahim² and N. Senanayake¹

¹ *Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka*

² *National Plant Quarantine Service, Katunayake, Sri Lanka*

Banana is the most popular fruit among Sri Lankans. Banana is being widely cultivated by small farmers. One of the problems associated with banana cultivation is the incidence of pests and diseases. This study was conducted during September 2007 to February 2008 to identify the prevalent pests and diseases of banana crop in the Gampaha district. Laboratory studies were conducted at National Plant Quarantine Service, Katunayake, and confirmation tests for virus diseases were carried out at Plant Virus Indexing Center, Homagama, Sri Lanka using double antibody sandwich ELISA with locally produced polyclonal antiserum.

The diseased plant parts (leaves and fruits), pests and soil samples were collected from randomly selected banana cultivations in ten administrative divisions in Gampaha district. Visual observations of pests, reference collections and published literature were used for pest identification of pests and visual symptoms of diseases. Culture plate method (on PDA media) and ELISA were used for disease assessment.

Panama (*Fusarium oxysporum*), Yellow Sigatoka (*Mycosphaerella musicola*), Anthracnose (*Colletotrichum musae*) and Cordana Leaf Spots (*Cordana musae*) were recorded as fungal diseases. Soft rot caused by *Erwinia carotovora* bacterium and viral diseases; *Banana Bunchy Top Virus*, *Banana Bract Mosaic Virus* and *Banana Streak Virus* were prevalent. ELISA tests showed banana were heavily infected with one or more viruses. *Banana Mosaic Virus* incidence was very low while Panama and Bunchy Top were serious in Gampaha district. Banana Weevils (*Cosmopolites sordidus* and *Odoiporus longicollis*) and

banana aphids (*Pentalonia nigronervosa*) were the prevalent pests. However, there were no quarantine pests or diseases found during the field survey.

Key words: Panama, Bacterial soft rot, *Banana Bunchy Top Virus*, Banana Weevils, Quarantine Pests